

Kansas Department of Transportation

Fiber Optic Infrastructure System

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1. Contract Scope

1.1. Introduction

The Kansas Department of Transportation (KDOT) is seeking to develop its right-of-way assets for the building of a fiber optic infrastructure, providing KDOT with means for meeting current and future Intelligent Transportation System (ITS) needs. The goal of this project is to provide a fiber optic infrastructure that can be used to support the various aspects of ITS deployment in conjunction with the Missouri Department of Transportation (MoDOT) in the greater Kansas City Metropolitan Area (KCMA).

KDOT is offering the use of its right-of-way in the KCMA area to interested companies with the intention of allowing these companies to install and operate communication networks along the right-of-way in exchange for dedicated information-carrying capacity within the fiber optic infrastructure network for KDOT's ITS use, communication services for ITS and a passive network (a network of conduit and handholes as defined herein) to support ITS deployment. It is not KDOT's intention to pay for the installation or provision of services and fiber optic infrastructure defined herein, except as noted herein.

KDOT has specific requirements and goals for this project. Briefly, these are:

- Installation of a fiber optic infrastructure to support ITS implementation in the KCMA area, including Phase I and future phases, with initial information-carrying capacity and scheduled growth of that capacity. This is a minimum requirement, and KDOT intends that this be offered as a minimum compensation for the use of right-of-way, at no cost to KDOT.
- Installation of a passive network for KDOT's use, specifically a conduit or innerduct and handhole system, plus ancillary components. This system may be offered in whole, part or not at all as additional compensation to KDOT for the use of right-of-way. KDOT does not require that the passive network be provided at no cost, but any offer containing some or all of this item at no cost to KDOT will weigh in favor of the Contractor in the evaluation process. Please note, regardless of how much or how little of the passive network the Contractor offers at no cost to KDOT, the Contractor is required to provide per unit costs for the passive network construction as part of the bid response.
- An annual dollar amount paid by the Contractor for the use of KDOT's right-of-way. KDOT does not require this, but any offer of monetary compensation will weigh in favor of the Contractor in the evaluation process.

These items are defined in greater detail elsewhere in this document.

This Proposal Form defines the **minimum** physical, operational and performance characteristics and requirements for the Fiber Optic Infrastructure System to be

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provided pursuant to this project. This Proposal Form also allows options for different approaches to this project which will be considered by KDOT. Specific requirements for system operation for the portions of the fiber optic network built for the use of the Contractor only are at the discretion of the Contractor, with the exception that all construction methods, placement and operations within KDOT right-of-way shall conform to KDOT construction standards and requirements, the KDOT Utility Accommodation Policy and any applicable codes.

This Proposal Form includes the requirements for construction within KDOT's rights-of-way, minimum standards and locations for service for KDOT, and some requirements for optoelectronic transmission equipment and related components that KDOT, in its judgment, feels are necessary to ensure proper communication of ITS.

1.2. Project Area

KDOT wishes to have a fiber optic infrastructure system deployed in the Kansas City Metro Area (KCMA) which consists of approximately 147 miles of right-of-way. This area is being offered in two phases, as described in Table 1 and shown in the attached Figure 1. The future phase may be broken up into sub-phases at the discretion of KDOT and MoDOT.

Any Contractor wishing to submit a bid in response to this Proposal Form MUST include the fiber optic infrastructure and services for KDOT's use in the Kansas City Metro Area at minimum. Failure to do so will result in the Contractor's bid being disqualified as non-responsive. This item is non-negotiable.

The passive network defined herein is vital to the ITS deployment in the KCMA area. KDOT realizes that the Contractor may not be able to offer any or all of the passive network as part of the bid. Regardless of how much of the passive network the Contractor offers, the Contractor MUST provide per unit costs to install the conduit, handholes and required ancillary items. In the event that the Contractor offers to install the entire passive network required by KDOT at no cost to KDOT, the Contractor must include the per unit dollar value of the network. KDOT will use these costs/values to evaluate the bid, and may elect, at KDOT's sole discretion, to direct the Contractor to build some or all of the passive network not provided by the Contractor at the per unit costs.

The Contractor is not limited to offering services on the area defined herein, and may propose any other segment of right-of-way within KDOT's jurisdiction. However, for purposes of evaluation and award, only the area illustrated in Figure 1 (KCMA) shall be considered by KDOT. Any offers on other areas will be reviewed and negotiated by KDOT as a separate issue from this project.

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To assist the Contractor in developing system offers, data are attached in *Appendix A - Service Points* defining KDOT's proposed facilities and types of systems to be served. This information, particularly regarding the ITS system and area, has been compiled as accurately as possible by KDOT, but KDOT notifies the Contractor that some modification and adjustment, particularly in ITS equipment is anticipated between the issue date of this document and the commencement of construction. KDOT therefore directs the Contractor that the system design proposed for the KCMA project area will require a degree of flexibility and the capability of reallocating the channels or data paths to different locations within the project area, within the totals stated herein.

Should KDOT wish to lease additional channels from the Contractor in the ITS project area, the Contractor shall provide these channels at rates equal to or less than those charged to the Contractor's other customers in the area. KDOT maintains the right and option to make separate arrangements for these services with others.

Table 1 - KCMA Construction Phases

Phase	Channels	Service Points
Kansas City Metro Area - Phase I	1	21
Kansas City Metro Area - Future	2	126

1.3. Project Goals

KDOT's primary goal for this contract is to gain access to a fiber optic infrastructure for data and video transmission to support a planned Intelligent Transportation System (ITS) initiative in the Kansas City Metro Area (KCMA).

The installation and activation of service in Phase I of the Kansas City Metro Area is under a strict project schedule as noted in Table 2 and must be completed on time. The installation and activation of service within the future construction area will be completed within 24 months of written notice to proceed from KDOT. Schedules for deployment of the fiber optic infrastructure will be negotiated and developed jointly by KDOT and the successful Contractor, within the stated time frames.

Additional goals include the provision of these fiber optic infrastructure services at no cost to KDOT, growth potential for the services and maximum data rate, flexibility, reliability and good quality service. At the end of the contract, the contract shall be re-negotiated for renewal.

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Appendix A - Service Points

**APPENDIX A
SERVICE POINTS**

ID#	Item/Facility	Location	Status	Channels		Node	Comments
				DS1	DS0	DS3	
	Phase I - Kansas City Metro Project Area (KCMA)						
36	Node, I/C 235, ITS, Demarc Point	I-35/Cambridge Circle	Prop/Exist		3		1-HAR Sign (existing), 2-RM
37	I/C 234, ITS	I-35/US-169 (7th St)	Proposed	5	2		1-CCTV, 2-RM
38	I/C 233 A-B, ITS	I-35/Mission Rd	Proposed	5	2		1-CCTV, 1-RM
39	I/C 232 B-C, ITS	I-35/S. US-69 (18th Exwy)	Prop/Exist	5	3		1-HAR Sign (existing), 1-CCTV, 2-RM
				15	10		
				15.4		0.6	NODE A
40	I/C 232A, Metro Mat'ls/Sub Area Ofc, ITS	I-35/Lamar Ave	Prop/Exist	2	5		2-VMS, 2-RM, 1-HAR Sign, existing office
41	Node, I/C 231, ITS	I-35/I-635	Proposed	10	4		2-CCTV, 4-RM
42	I/C 230, ITS	I-35/Antioch Rd	Proposed		2		1-RM
43	I/C 229, ITS	I-35/Johnson Dr	Proposed		5		2-VMS, 1-HAR, 2-RM
44	I/C 228 B-C, ITS	I-35/Shawnee Mission Pkwy	Proposed	5	4		1-CCTV, 4-RM
45	I/C 228A, ITS	I-35/87th St	Proposed		2		2-RM
66	I/C 1C, ITS	I-635/Shawnee Dr	Future	5	2		1-CCTV
67	I/C 1B	I-635/Merrian Lane	Future		2		
				22	26		
				23.1		0.8	NODE B
46	I/C 227, Area Mat'ls Office, ITS	I-35/75th St	Prop/Exist	7	3		Existing office on Lamar Ave., 1-CCTV, 1-VMS., 2-RM
47	Node, I/C 225B, ITS	I-35/US-69	Proposed	5	4		1-CCTV, 2-RM, 2-HAR Sign
48	I/C 225A, ITS	I-35/87th St	Proposed	5	2		1-CCTV, 2-RM
71	I/C	US-69/87th St	Future		2		
72	I/C, ITS	US-69/95th St	Future	5	2		1-CCTV
				22	13		
				22.5		0.8	NODE C
49	I/C 224, Permanent Equip., ITS	I-35/95th St	Prop/Exist	5	4		Exist. equip. E side 87th-95th, 1-CCTV, 1-VMS, 2-RM
25	I/C 3, ITS	I-435/87th St	Future		2		1-HAR Sign
26	I/C 2, Permanent Equip.	I-435/95th St	Existing		2		Equip. N of 95th St. bridge
27	I/C 1 A-B, ITS	I-435/K-10/Lackman Rd	Future	5	2		1-CCTV
28	Node, I/C 222 A-B, I/C 83, ITS	I-435/I-35	Proposed	10	5		2-CCTV, 1-VMS, 4-RM
101	I/C, ITS	K-10/Ridgeville Rd	Future	5	2		1-CCTV
102	I/C, ITS	K-10/Renner Rd	Future		2		1-VMS
				25	19		
				25.8		0.9	NODE D

**APPENDIX A
SERVICE POINTS**

ID#	Item/Facility	Location →	Status	Channels		Node	Comments
				DS1	DS0	DS3	
29	I/C 82, ITS	I-435/Ouivira Rd	Proposed	5	2		1-CCTV, 1-VMS
30	Node, I/C 81, ITS	I-435/US-69	Proposed	10	2		2-CCTV, 1-HAR Sign
31	ITS	I-435/Antioch	Proposed	5	3		1-CCTV, 2-VMS, 1-HAR Sign
32	I/C 79, ITS	I-435/US-169	Proposed	5	3		1-CCTV, 2-VMS, 1-HAR Sign
73	I/C	US-69/103rd St	Future		2		
74	I/C	US-69/College Blvd	Future		2		
75	I/C, ITS	US-69/119th St	Future	5	2		1-CCTV
76	I/C, ITS	US-69/127th St	Future	5	2		1-CCTV, 1-HAR Sign
				35	18		
				35.8		1.3	NODE E
33	I/C 78	I-435/Nall Rd	Future		2		
34	I/C 77, ITS	I-435/Roe Ave	Proposed	10	2		2-CCTV, 1-HAR
35	Node, I/C 75, ITS, Demarc Point	I-435/State Line Rd	Proposed	5	2		1-CCTV, 1-VMS
				15	6		
				15.3		0.5	NODE F

CERTIFICATE OF SERVICE

I, Colleen von Hollen, of Kraskin, Lesse & Cosson, LLP, 2120 L Street, NW, Suite 520, Washington, DC 20037, do hereby certify that on this 9th day of March, 1998, a copy of the foregoing Opposition of Minnesota Telephone Association was hand-delivered to the following:

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